



[4910–13]

**DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration**

**Waiver of Requirement to Enter into a Reciprocal Waiver of Claims Agreement
with All Customers for Orbital Sciences Corporation**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of waiver.

SUMMARY: This notice concerns a petition for waiver submitted to the Federal Aviation Administration (FAA) by Orbital Sciences Corporation (Orbital) to waive, in part, the requirement that a launch operator enter into a reciprocal waiver of claims with each customer. The FAA grants the petition on the condition that no employees of NASA-sponsored CubeSat operators will be inside a hazard area associated with the Minotaur I launch.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this waiver, contact Charles P. Brinkman, Licensing Program Lead, Commercial Space Transportation - Licensing and Evaluation Division, 800 Independence Avenue, S.W., Washington, DC 20591; telephone: (202) 267-7715; e-mail: Phil.Brinkman@faa.gov. For legal questions concerning this waiver, contact Sabrina Jawed, Attorney-Adviser, Space Law Branch, AGC-250, Office of the Chief Counsel, Regulations Division, Federal Aviation Administration, 800 Independence Avenue, SW., Washington, DC 20591; telephone (202) 267-8839; e-mail: Sabrina.Jawed@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

On November 8, 2013, Orbital submitted a petition to the FAA's Office of Commercial Space Transportation (AST) requesting a waiver under its launch license for flight of the Minotaur I launch vehicle carrying the Air Force Operationally Responsive Space Office-3 (ORS-3) payload. Orbital requested a partial waiver of 14 CFR 440.17, which requires a licensee to enter into a reciprocal waiver of claims (a "cross-waiver") with each of its customers.

The FAA licenses the launch of a launch vehicle and reentry of a reentry vehicle under authority granted to the Secretary of Transportation by the Commercial Space Launch Act of 1984, as amended and re-codified by 51 U.S.C. Subtitle V, chapter 509 (Chapter 509), and delegated to the FAA Administrator and the Associate Administrator for Commercial Space Transportation, who exercises licensing authority under Chapter 509.

The petition for waiver applies to Orbital's November 2013 launch of a Minotaur I launch vehicle and its ORS-3 payload. The ORS-3 mission will demonstrate and validate launch and range improvements for NASA and the military. The ORS-3 payloads consist of a Space Test Program Satellite-3 (STPSat-3), twenty-eight other CubeSats, and two government experiments that will not separate from the upper stage of the launch vehicle. STPSat-3 is an Air Force technology demonstration mission. Nineteen of the CubeSats are U.S. Government owned, one of which is NASA's Small Satellite Program PhoneSat 2 second generation smartphone mission. NASA is sponsoring the remaining ten CubeSats through its CubeSat Launch Initiative. NASA's CubeSat Launch Initiative provides opportunities for small satellite payloads to fly on rockets as part of research addressing science, exploration, technology development,

education or operations.¹ The operators of the ten NASA-sponsored CubeSats are University of Hawaii, Vermont Technical College, University of New Mexico, University of Louisiana at Lafayette, University of Florida, University of Alabama in Huntsville, Thomas Jefferson High School for Science and Technology, St. Louis University, University of Kentucky, and Drexel University. Among the NASA-sponsored CubeSats is the first CubeSat built by high school students.²

NASA obtained cross-waivers of liability with each of the above educational institutions through Cooperative Research and Development Agreements (CRADAs). These ten educational institutions are part of NASA's Educational Launch of Nanosatellites (ELaNa) program. ELaNa is an initiative created by NASA to attract and retain students in the science, technology, engineering and mathematics disciplines. Students participating in ELaNa are involved in developing, assembling, and testing payloads as well as working with NASA and the launch vehicle integration teams.³

Cross-waivers are not required for the nineteen U.S. Government owned CubeSats, or the two U.S. Government owned experiments that will remain attached to the upper stage. The operators of the remaining ten NASA-sponsored CubeSats qualify as customers under the FAA's definitions. Section 440.3 defines a customer, in relevant part, as any person with rights in the payload or any part of the payload, or any person who has placed property on board the payload for launch, reentry, or payload services. A person is an individual or an entity organized or existing under the laws of a State or

¹ NASA's CubeSat Launch Initiative (CSLI), http://www.nasa.gov/directorates/heo/home/CubeSats_initiative.html (last visited Nov. 13, 2013).

² Chris Chester, *Fairfax County School to Put First Student-Built Satellite in Orbit*, WAMU 88.5 News, Nov. 4, 2013, http://wamu.org/news/13/11/01/fairfax_county_school_helps_put_first_student_built_satellite_in_orbit.

³ NASA's Educational Launch of Nanosatellites, http://www.nasa.gov/mission_pages/smallsats/elana/ (last visited Nov. 13, 2013).

country. 51 U.S.C. 50901(12) (2013), 14 CFR 401.5 (2013). The subjects of this waiver are persons because University of Hawaii, Vermont Technical College, University of New Mexico, University of Louisiana at Lafayette, University of Florida, University of Alabama in Huntsville, Thomas Jefferson High School for Science and Technology, St. Louis University, University of Kentucky, and Drexel University are entities organized or existing under the laws of Hawaii, Vermont, New Mexico, Louisiana, Florida, Alabama, Virginia, Missouri, Kentucky, and Pennsylvania, respectively. Accordingly, because these persons have rights in their respective payloads due to their ownership of those objects, and because they have placed property on board, they are customers. Section 440.17 requires their signatures as customers.

In this instance, however, each of the CubeSat operators is also subject to a NASA reciprocal waiver of claims, a cross-waiver, which is governed by NASA's regulations at 14 CFR 1266.104. Article 7 of the CRADAs between NASA and the various NASA-sponsored CubeSat operators governs liability and risk of loss and establishes a cross-waiver of liability.

Orbital's petition for partial waiver of the FAA requirement that Orbital implement a cross-waiver with each customer applies to each of the NASA-sponsored CubeSat operators, all of whom have signed a CRADA with NASA, and who are customers of the November 2013 launch of the Minotaur I launch vehicle carrying the ORS-3 payload.

Waiver Criteria:

Chapter 509 allows the FAA to waive a license requirement if the waiver 1. will not jeopardize public health and safety, safety of property; 2. will not jeopardize national

security and foreign policy interests of the United States; and 3. will be in the public interest. 51 U.S.C. 50905(b)(3); 14 CFR 404.5(b).

Waiver of FAA Requirement for Each Customer to Sign a Reciprocal Waiver of Claims:

The FAA waives 14 CFR 440.17, which requires a licensee to enter into a reciprocal waiver of claims with each of its customers, with respect to the NASA-sponsored CubeSat operators, each of which has signed a CRADA with NASA, and who are customers of the November 2013 launch of the Minotaur I launch vehicle carrying the ORS-3 payload.

In 1988, as part of a comprehensive financial responsibility and risk sharing regime that protects launch participants and the U.S. Government from the risks of catastrophic loss and litigation, Congress required that all launch participants agree to waive claims against each other for their own property damage or loss, and to cover losses experienced by their own employees. 51 U.S.C. 50915(b). This part of the regime was intended to relieve launch participants of the burden of obtaining property insurance by having each party be responsible for the loss of its own property and to limit the universe of claims that might arise as a result of a launch. H. Rep. 100-639, at 11-12 (1988); S. Rep. 100-593, at 14, (1988); *Financial Responsibility Requirements for Licensed Launch Activities, Notice of Proposed Rulemaking*, 61 FR 38992, 39011 (Jul. 25, 1996). The FAA's implementing regulations may be found at 14 CFR part 440.

In its request for a waiver, Orbital submits that the NASA CRADA reciprocal waivers of claims imposed on the NASA-sponsored CubeSat operators are equivalent to the requirements imposed on each customer under the FAA's requirements of 14 CFR

part 440. A comparison of the two regimes shows that in this particular situation the two sets of cross-waivers are sufficiently similar that the statutory goals of 51 U.S.C. 50914(b) will be met by the FAA agreeing to accept the NASA cross-waivers in this instance, provided that no employees of NASA-sponsored CubeSat operators will be inside a hazard area associated with the Minotaur I launch.

The FAA cross-waivers require the launch participants, including the U.S. Government and each customer, and their respective contractors and subcontractors, to waive and release claims against all the other parties to the waiver and agree to assume financial responsibility for property damage sustained by that party and for bodily injury or property damage sustained by the party's own employees, and to hold harmless and indemnify each other from bodily injury or property damage sustained by their respective employees resulting from the licensed activity, regardless of fault. 14 CFR 440.17(b) and (c). Each party⁴ to the cross-waiver must indemnify the other parties from claims by the indemnifying party's contractors and subcontractors if the indemnifying party fails to properly extend the requirements of the cross-waivers to its contractors and subcontractors. 14 CFR 440.17(d).

A comparison of each element shows that, although there are some differences, because Article 7 of the NASA CRADAs addressing liability and risk of loss and signed by each of the NASA-sponsored CubeSat operators is consistent with Congressional intent and the FAA's regulations, and relevant employees will not be present at the launch site, the FAA waives the requirement of 14 CFR 440.17 that NASA-sponsored CubeSat operators must sign a cross-waiver. Additionally, the FAA notes that because the only

⁴ Indemnification by the U.S. Government is conditioned upon the passage of legislation. 51 U.S.C. 50915; 14 CFR 440.17(d).

customers for the Minotaur I November 2013 launch are the U.S. Government, for which cross-waivers are not required, and the various NASA-sponsored CubeSat operators, for which the CRADAs provide waivers of liability, the only signatories to the FAA cross-waivers as required by 14 CFR 440.17 are the FAA, on behalf of the U.S. Government, and Orbital. Therefore, Orbital does not need to amend its cross-waivers to provide that signing customers waive claims against any other customer as defined by 14 CFR 440.3, as the FAA has previously required before granting a similar waiver.⁵

The FAA bases this determination of sufficient similarity between the FAA and NASA cross-waiver schemes on the reasons stated in the waiver the FAA published for Space Exploration Technologies Corporation on October 16, 2012,⁶ and for the reasons stated above.⁷ The FAA finds that that this waiver implicates no safety, national security or foreign policy issues. The waiver is consistent with the public interest goals of Chapter 509. Under 51 U.S.C. 50914, Congress determined that it was necessary to reduce the costs associated with insurance and litigation by requiring launch participants, including customers, to waive claims against each other. Because the CRADAs under 14 CFR part 1266 accomplish these goals by the same or similar means, the FAA finds this request in the public interest. The FAA grants the waiver with respect to the NASA-sponsored CubeSat operators in reliance on the representations Orbital made in its petition, and on the condition that no employees of NASA-sponsored CubeSat operators will be inside a hazard area associated with the Minotaur I launch.

⁵ See *Waiver of Requirement to Enter Into a Reciprocal Waiver of Claims Agreement With All Customers for Orbital Sciences Corporation*, Notice of Waiver, 78 FR 57215, 57216 (Sept. 17, 2013).

⁶ *Waiver of Requirement to Enter Into a Reciprocal Waiver of Claims Agreement With All Customers*, Notice of Waiver, 77 FR 63221 (Oct. 16, 2012).

⁷ The FAA also notes that although its previous waiver cited above discussed NASA's Space Act Agreements rather than CRADAs, the waiver of liability language in both types of NASA contract has the same effect and therefore the FAA applies the same reasoning.

Issued in Washington, DC on November 15, 2013.

Kenneth Wong,
Commercial Space Transportation,
Licensing and Evaluation Division Manager.

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